LXXVI. *A remarkable Inſtance of Four rough Stones, that were diſcovered in an human urinary Bladder, contrary to the received Opinion; and ſucceſsfully extracted by the lateral Method of Cutting for the Stone.* By Mr. Joſeph Warner, *F. R. S. and Surgeon to* Guy's-Hoſpital.

Read Feb. 23. 1758. THE favourable reception thoſe few papers have met with from the Royal Society, which I have done myſelf the honour of addreſſing to them, encourages me to take the liberty of offering the following account to their conſideration: and I am the more immediately induced to ſubmit this paper to their peruſal, as the fact hereafter related may poſſibly be not eſteemed a matter of mere curioſity; ſince it is probable, that the inferences deduced from the hiſtory of the ſubſequent caſe, when attended to, may prove of the greateſt conſequence to the future eaſe and welfare of the patient, as well as be a means of preventing the operator from falling into ſuch errors, as cannot fail of drawing an imputation upon his character, in the practice of one of the moſt capital and difficult undertakings in his profeſſion.

It is a maxim laid down by the moſt judicious and beſt received writers upon operations in ſurgery, that when the ſurface of a ſtone, which has been extracted from the bladder, appears to be totally rough, it amounts to a proof of its having been

there alone. But notwithſtanding I admit it is from experience found, that the obſervation is in general well grounded, it may nevertheleſs appear, from the following caſe, that this rule is not unexceptionable: for which reaſon perhaps it may be thought right, that we ſhould not be determined from circumſtances only; but, on the contrary, that it is neceſſary for every ſurgeon to take ſuch methods during the operation, as will enable him to judge with that degree of certainty, without which he cannot be enabled to do ſo.

The methods I would recommend are theſe: That after the extraction of a ſtone from the bladder, tho' the whole of its ſurface be rough, the operator ſhould nevertheleſs introduce the forefinger of his left or right hand thro' the wound into the cavity of the bladder; by which means, if the ſubject be under twelve years of age, he will be enabled to come in contact with every internal part of the bladder with his finger: but if the ſubject be an adult, and of a corpulent habit of body, the finger, under theſe circumſtances, not being found to be ſufficiently long for the purpoſe, he muſt have recourſe to a female catheter, or ſome other inſtrument that is nearly ſtrait, quite ſmooth and poliſhed, and of about nine or ten inches long; which will ſerve the purpoſe equally well, if of a proper form and thickneſs. This is the method I have made uſe of upon the like occaſions of late years, without giving any great degree of pain to the patient, or conſiderably retarding the operation.

Since I have had the opportunity of making the following obſervation, as well as a prior obſervation

tion ſomething ſimilar to this, where two rough ſtones were extracted by me a few years ago from a young man's bladder of 15 years of age, I cannot help ſuſpecting, that there may have been inſtances of one or more ſtones being left behind in the bladder at the time of operating, merely from the operator's putting too great a confidence in this general rule. Which ſuſpicion I am led into from having known people, who have undergone the operation of cutting for the ſtone, relapſe into the like diſorder in a ſhort time after the healing of their wounds, attended with ſuch ſymptoms, as have obliged them to ſubmit to a ſecond operation; when the ſtone, upon being extracted, has appeared of ſo conſiderable a ſize, as to make it ſuſpicious, that this ſtone muſt probably have been of a much longer growth, than the ſhort time betwixt the two operations could admit of. The maxim laid down to us by authors, of a ſmooth and poliſhed ſtone in the bladder being never there alone, but always accompanied with one or more ſtones of the ſame kind, I know no exception to. But if this phænomenon ſhould ever occur, the ſtrict obſervance of that rule (delivered to us by judicious writers in ſurgery) of always ſearching the bladder under the like appearances, on preſumption of one or more ſtones being left behind, cannot be attended with any future miſchief to the patient, when carefully executed by the methods recommended above, and undoubtedly ſhould always be ſtrictly attended to. The ſmooth and poliſhed appearances of the ſurfaces of human *calculi* are univerſally ſuppoſed to ariſe from their rubbing one againſt the other; which may with reaſon be ſuppoſed

poſed to be the caſe: but I confeſs this inference is not ſatisfactory to me; ſince it is probable, if this was the ſole cauſe of their ſmoothneſs, the ſame effect would probably be always produced, when attended with the ſame degree of friction. But as this may be conſidered as a matter of mere ſpeculation, I refer the deciſion of this point to thoſe of ſuperior abilities.

CASE.

Mr. William Woodhams, a gentleman farmer, of a corpulent habit of body, in the 46th year of his age, now living in the pariſh of Udimore, within three miles of Rye in Suſſex, was attacked about eight years ago with ſevere complaints in his loins, accompanied with an incapacity of voiding his urine without the aſſiſtance of proper medicines, which were adminiſtered to him by a neighbouring apothecary for that purpoſe. Theſe medicines had the deſired effect: they promoted a ſecretion, and an evacuation of urine; which appeared to be loaded with a conſiderable quantity of gravelly particles mixed with a *mucus* of a whitiſh colour. In the ſpace of three weeks he had perfectly recovered from this attack, and continued well for near five years afterwards, without any return of his complaint, except when he rode hard on horſeback, or drank more freely of ſtrong liquors than uſual. At the expiration of five years he was ſeized with an acute fever, of which he recovered in a few weeks.

Very ſoon after his recovery from this illneſs, he began to complain of exceſſive pain in voiding his urine, or upon going to ſtool; which ſymptoms were

were ſo greatly increaſed for many months before he ſubmitted to the operation, as to quite diſable him from riding, from walking, or from uſing any kind of exercife. His urine, of late, was continually and involuntarily flowing from him in ſmall quantities. He complained of great pain and ſoreneſs in his fundament, attended with a *teneſmus*. This account he delivered to me on the ſecond day after the operation; and at the ſame time he very feelingly told me, that he had enjoyed but very few and ſhort intervals of eaſe for the three laſt years, till ſince the operation.

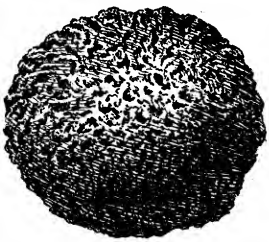
On the 30th of January 1758, I cut him, at his own houſe in Suſſex, having firſt prepared him for the operation in the manner, that is uſual upon the like occaſion. In the operation, I extracted the four ſtones, which I now have the honour of laying before the Royal Society. The whole ſurfaces of theſe ſtones appear to be rough, not having the leaſt marks of ever having rubbed againſt each other during their confinement in the bladder: but yet I conjecture this muſt frequently have been the caſe, as there was no difficulty in embracing theſe *calculi* with the forceps: for had they been contained in different cells or pouches in the bladder, which ſometimes have been obſerved from diſſections, this circumſtance would, in all probability, have rendered it impracticable for me to have ſo immediately got at them, if at all.

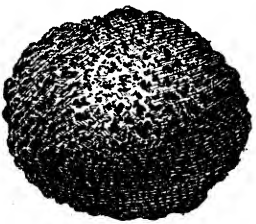
The forceps was introduced only three times into the bladder for effecting the extraction of the three firſt ſtones, and only twice for the extraction of the fourth ſtone. Beſides theſe four ſtones, which I have preſented to the Society for their inſpection, I thought it

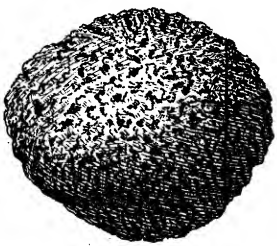
it not improper to produce, at the ſame time, ſome other human *calculi*, for their further ſatisfaction, each of which was found ſingle in the urinary bladders of different ſubjects. The ſurfaces of theſe ſtones may be obſerved to be much ſmoother than the ſurface of either of the four ſtones, that were extracted from Mr. Woodhams's bladder in the operation I have juſt now recited; and therefore it was more reaſonable to expect to find each of theſe ſtones accompanied with one or more ſtones in the ſame bladder (according to the received opinion), than it was to find more ſtones than one in the caſe of Mr. Woodhams's, which has given riſe to theſe obſervations.

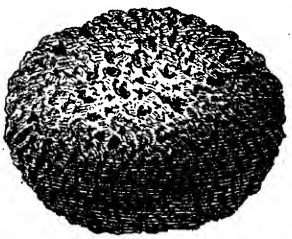
But as the fact before us does of itſelf ſhew the impropriety and danger of determining from the ſurfaces of ſuch extraneous bodies, perhaps it may be thought needleſs to enlarge upon this ſubject, to ſtrengthen thoſe precautions ſo reaſonable to be obſerved in this operation. However, as I have already taken notice of the ſmooth and poliſhed appearances of the ſurfaces of ſuch ſtones, as are probably never found ſingle in the bladder; I have produced two ſtones of this kind, that were extracted from the ſame bladder, to ſhew, that theſe ſtones do no more reſemble thoſe ſtones of Mr. Woodhams's, than a piece of poliſhed marble can be ſaid to reſemble a rough block of the ſame ſpecies.

P. S. I am informed, by a letter from Suſſex, dated the 18th inſtant, that Mr. Woodhams is perfectly well in health; that the whole of his urine had paſſed through the urethra for the laſt









This Plate *is an exact representation of the Sizes and external appearances of the four rough Stones described in the preceeding paper*

J. Mynde sc.

laſt five or ſix days; and that his wound will, in all probability, be ſoon healed.

Hatton-Garden,
February 22. 1758. Joſeph Warner.

LXXVII. *Obſervations on the* Limax non cochleata Purpur ferens, *The naked Snail producing Purple. By* John Andrew Peyſſonel, *M. D. F. R. S. Tranſlated from the* French.

Read Feb. 23, 1758. AMONG the fiſh we meet with in the ſeas of the Antilles of America, we find, that this I am going to deſcribe will appear precious, from the beautiful purple colour it produces, in the ſame manner, that the cuttle-fiſh produces its ink, if a means could be found to procure this liquor in a ſufficient quantity to render it an article of commerce. Theſe fiſhes are ſoft, viſcous, without ſhells, ſcales, or bones; are of the nature of the *polypi*, and ſuch other kinds, without feet, fins, or any thing to ſupply their places. Their motion is vermicular; and, like the ſlugs, they wreath themſelves up, and when touched make themſelves quite round.

They fill up certain membranes of the body with water. Their local motion; *antennæ*, which they lengthen and contract; and a great many other properties, which they have in common with ſnails, ſlugs, and turbinated ſhell-fiſh, made me call them naked ſnails: and altho' they have not the moſt eſ-